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ADAMS, CHARLES D				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/629,910

**Applicant(s)**

LILLQVIST ET AL.

**Examiner**

CHARLES D. ADAMS

**Art Unit**

2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 4-21-08.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 and 21-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 21-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Remarks***

1. In response to communications filed on 21 April 2008, claims 1, 9-15 are amended, claims 16-20 are cancelled, and claims 21-27 are added per applicant's request. Claims 1-15 and 21-27 are pending in the application.

### ***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claim 12 recites a computer readable medium. However, there is no recitation or definition of a "computer readable medium" in the specification. As such, it is uncertain if the "computer readable medium" claimed in claim 12 is statutory subject matter or not. If an amendment to the specification were submitted to include a definition of "computer readable medium" that limited a computer readable medium to statutory subject matter (such as memory or storage), it would provide proper antecedent basis for the claimed language and make it clear that a statutory class of invention is being claimed.

In response to applicants' arguments that the specification provides support for the recitation of "computer-readable medium", Examiner has considered Figure 4 of the current specification and its accompanying paragraph. Examiner notes nothing in Figure 4 or its accompanying paragraph provide clear support for what specifically the limitation "computer readable medium" entails.

***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 13 is rejected under 35 U.S.C. 101 because the claim lacks the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. Though the claim is disclosed as a system, the components of the claim are only software components. There are is no hardware recited in the claim. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lawry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994).

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make is statutory. See *Diehr*, 450 U.S. at 185-186, 209 USPQ at 8 (noting that

the claims for an algorithm in *Benson* were unpatentable as abstract ideas because “[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.”).

Applicants argue that “a ‘receiver unit’ recited in claim 13 (as previously presented) is not simply software, but is hardware. Furthermore claim 13 (as amended), recites ‘a receiver’ and ‘a transmitter,’ which “are clearly hardware elements”. Examiner notes that ‘a receiver’, ‘a transmitter’, or ‘a converter’ may still simply be names applied to software elements, and that there is no recitation in the specification limiting ‘a transmitter’, ‘a receiver’, or ‘a converter’ to hardware.

Examiner also notes that amending the claim to include a clear hardware element, such as wherein the system includes a name server storing the receiver, the transmitter, and the converter, would remove confusion regarding the statutory class of invention being claimed. Examiner also notes that the specification provides antecedent basis for this at paragraphs [0025] and [0031].

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2, 8-15, 21, and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsukui et al. (US Patent 6,557,045).

As to claim 1, Tsukui et al. teaches a method, comprising:

receiving data to be supplied to database operations (see 3:59-67), the data including at least one Internet domain name comprising a plurality of successive labels separated by dots, said at least one Internet domain name being in a first format, wherein the at least one Internet domain name comprises at least one hostname and at least one top-level domain name (see Figure 4);

conditionally converting at least one of said at least one Internet domain name into a second format of Internet domain name in which at least two successive labels of the at least one of said at least one Internet domain name are combined for form a single label (see 4:3-65, and Figure 3. The entire process of figure 3 extracts subdomains from an address, and stores them together in a various fields, shown in Figure 5, and converts them into a format in which subdomains are stored in different fields in a database. This is a "second format of Internet domain name", as an Internet domain name is being stored in another format), wherein the conditionally converting comprises converting the Internet domain name when the Internet domain name fulfills a predetermined condition (see 4:3-22. If the top level domain name is not already in memory, it will combine it with the next label);

supplying the data to the database operations, the supplied data including at least one Internet domain name in the second format (see 5:40-50. The data may then be used in writing emails later on).

As to claims 2 and 21, Tsukui et al. teaches:

Examining whether an Internet domain name fulfills the predetermined condition in the first format (see 4:3-22).

As to claims 8 and 27, Tsukui et al. teaches:

receiving data including another Internet domain name in the second format (see 6:11-60 and Figure 7. A user may input a domain name in a fragmented format and convert it back to the first format); and

converting the another Internet domain name received in the second format back to the first format (see 6:11-60 and Figure 7. A user may input a domain name in a fragmented format and convert it back to the first format).

As to claim 9, Tsukui et al. teaches:

receiving means for receiving data to be supplied to database operations (see 3:59-67), the data including at least one Internet domain name comprising a plurality of successive labels separated by dots, said at least one Internet domain name being in a first format, wherein the at least one Internet domain name comprises at least one hostname and at least one top-level domain name (see Figure 4);

converting means for conditionally converting at least one of said at least one Internet domain name into a second format of Internet domain name in which at least two successive labels of the at least one of said at least one Internet domain name are combined to form a single label (see 4:3-65, and Figure 3. The entire process of figure 3 extracts subdomains from an address, and stores them together in a various fields, shown in Figure 5, and converts them into a format in which subdomains are stored in different fields in a database. This is a "second format of Internet domain name", as an Internet domain name is being stored in another format), wherein the second means is configured to convert the Internet domain name when the Internet domain name fulfills a predetermined condition (see 4:3-22); and

supplying means for supplying the data to database operations, the supplied data including at least one Internet domain name in the second format (see 5:40-50. The data may then be used in writing emails later on).

As to claim 10, Tsukui et al. teaches:

examining means for examining whether an Internet domain name fulfills the predetermined condition, the second means being configured to convert the Internet domain name into the second format when the Internet domain name fulfills the predetermined condition (see 4:3-22).

As to claim 11, Tsukui et al. teaches:



A first interface configured to receive data to be supplied to database operations (see 3:59-67), the data including at least one Internet domain name comprising a plurality of successive labels separated by dots, said at least one Internet domain name being in a first format, wherein the at least one Internet domain name comprises at least one hostname and at least one top-level domain name;

a converter configured to conditionally convert at least one of said at least one Internet domain name into a second format of Internet domain name in which at least two successive labels of the at least one of said at least one Internet domain name form a single label (see 4:3-65, and Figure 3. The entire process of figure 3 extracts subdomains from an address, and stores them together in a various fields, shown in Figure 5. This is a "second format of Internet domain name", as an Internet domain name is being stored in another format), wherein the modification module is configured to convert the Internet domain name when the Internet domain name fulfills a predetermined condition (see 4:3-22); and

A second interface configured to supply the data to database operations, the supplied data including at least one Internet domain name in the second format (see 5:40-50. The data may then be used in writing emails later on).

As to claim 12, Tsukui et al. teaches:

Receiving data to be supplied to database operations (see 3:59-67), the data including at least one Internet domain name comprising a plurality of successive labels separated by dots, said at least one Internet domain name being in a first format,

wherein the at least one Internet domain name comprises at least one hostname and at least one top-level domain name (see Figure 4);

Conditionally converting at least one of said at least one Internet domain name into a second format of Internet domain name in which at least two successive labels of the at least one of said at least one Internet domain name are combined to form a single label (see 4:3-65, and Figure 3. The entire process of figure 3 extracts subdomains from an address, and stores them together in a various fields, shown in Figure 5. This is a "second format of Internet domain name", as an Internet domain name is being stored in another format), wherein the conditionally converting comprises converting the Internet domain name when the Internet domain name fulfills a predetermined condition (see 4:3-22); and

Supplying the data to the database operations, the supplied data including at least one Internet domain name in the second format (see 5:40-50. The data may then be used in writing emails later on).

As to claim 13, Tsukui et al. teaches:

A receiver configured to receive data to be supplied to database operations (see 3:59-67), the data including at least one Internet domain name comprising a plurality of successive labels separated by dots, said at least one Internet domain name being in a first format, wherein the at least one Internet domain name comprises at least one hostname and at least one top-level domain name (see Figure 4);

A converter configured to convert at least one of said at least one Internet domain name into a second format of Internet domain name in which at least two successive labels of the at least one of said one Internet domain name are combined to form a single label (see 4:3-65, and Figure 3. The entire process of figure 3 extracts subdomains from an address, and stores them together in a various fields, shown in Figure 5, and converts them into a format in which subdomains are stored in different fields in a database. This is a "second format of Internet domain name", as an Internet domain name is being stored in another format), wherein the conversion unit is configured to convert the Internet domain name when the Internet domain name fulfills a predetermined condition (see 4:3-22); and

A transmitter configured to supply the data to database operations, the supplied data including at least one Internet domain name in the second format (see 5:40-50. The data may then be used in writing emails later on).

As to claim 14, Tsukui et al. teaches:

A processor configured to examine whether an Internet domain name fulfills a predetermined condition, the converter being configured to convert the Internet domain name into the second format when the Internet domain name fulfills the predetermined condition (see 4:3-22).

As to claim 15, Tsukui et al. teaches:

First interface means for receiving data to be supplied to database operations (see 3:59-67), the data including at least one Internet domain name comprising a plurality of successive labels separated by dots, said at least one Internet domain name being in a first format, wherein the at least one Internet domain name comprises at least one hostname and at least one top-level domain name (see Figure 4);

Modification means for conditionally converting at least one of said at least one Internet domain name into a second format of Internet domain name in which at least two successive labels of the at least one of said at least one Internet domain name form a single label (see 4:3-65, and Figure 3. The entire process of figure 3 extracts subdomains from an address, and stores them together in a various fields, shown in Figure 5, and converts them into a format in which subdomains are stored in different fields in a database. This is a "second format of Internet domain name", as an Internet domain name is being stored in another format), wherein the modification means is configured to conditionally convert the Internet domain name when the Internet domain name fulfills a predetermined condition (see 4:3-22); and

Second interface means for supplying the data to database operations, the supplied data including at least one Internet domain name in the second format (see 5:40-50. The data may then be used in writing emails later on).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3-5 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukui et al. (US Patent 6,557,045) in view of Bagley et al. (US Patent 6,963,928).

As to claims 3 and 22, Tsukui et al. does not teach wherein the examining step includes examining whether said Internet domain name includes at least a predetermined number of labels beyond a given origin,

Bagley et al. teaches wherein the examining step includes examining whether said Internet domain name includes at least a predetermined number of labels beyond a given origin (see 8:29-36, 8:60-9:2);

Tsukui et al. as modified teaches said labels having a predetermined maximum length (see Figure 4. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have set a maximum length for a label, given a finite amount of storage available. It was well known in the art for administrators of databases to set sizes of fields).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Tsukui et al. by the teachings of Bagley et al., since Bagley et al. teaches that "one advantage of the foregoing feature of the present invention is that the variations and mistakes such as insertion of an underline instead of a hyphen are filtered out in the translation process" (see 9:60-63).

As to claims 4 and 23, Tsukui et al. as modified teaches wherein the predetermined condition upon which the converting is conditional is whether the Internet domain name includes at least the predetermined number of labels beyond the given origin, such that the converting is performed for said Internet domain name when the examining indicates that the Internet domain name includes at least the predetermined number of labels beyond the given origin (see Bagley et al. 8:29-36, 8:60-9:2), said labels having the predetermined maximum length, and the converting is not performed when the examining indicates that the Internet domain name does not include at least the predetermined number of labels (see Bagley et al. 8:29-36, 8:60-9:2).

As to claims 5 and 24, Tsukui et al. as modified teaches wherein the predetermined number of labels is three (see Bagley et al. 8:60-9:2 and 13:5-12).

9. Claims 6-7 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukui et al. (US Patent 6,557,045) in view of Bagley et al. (US Patent 6,963,928), and further in view of Khello et al. (US Pre-Grant Publication 2003/0007482).

As to claim 6 and 25, Tsukui et al. as modified does not teach teaches wherein the predetermined maximum length is one byte

Khello et al. teaches wherein the predetermined maximum length is one byte (see paragraph [0058]. Khello et al. teaches wherein the labels are individual numbers, which are valid subdomains).

As to claims 7 and 26, Tsukui et al., as modified does not teach wherein the predetermined maximum length is one byte.

Khello et al. teaches wherein the predetermined maximum length is one byte (see paragraph [0058]. Khello et al. teaches wherein the labels are individual numbers, which are valid subdomains).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Tsukui et al. by the teaching of Khello et al., because one of ordinary skill in the art would recognize that setting a maximum limit on label size would save memory.

### ***Response to Arguments***

10. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES D. ADAMS whose telephone number is (571)272-3938. The examiner can normally be reached on 8:30 AM - 5:00 PM, M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. D. A./  
Examiner, Art Unit 2164

/Charles Rones/  
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